CFDURATION

Updated: 31 Mar 2016

Use CFDURATION to calculate the duration of a series of cash flows. The cash flow duration is calculated as the first derivative of the present value of the cash flows divided by the present value of the cash flows multiplied by 1 + discount rate. The unit of duration is years.

Syntax

```
Public Shared Function CFDURATION(
    ByVal Disc_rate As Double,
    ByVal VDate As Date(),
    ByVal CFamt As Double(),
    ByVal CFdate As Date(),)
```

Arguments

Disc_rate

the annual interest rate used to discount the cash flows to *vDate*. *Disc_rate* is an expression that returns a **Double**, or of a type that can be implicitly converted to **Double**.

VDate

the date to which the cash flows are discounted. *VDate* is an expression that returns an Array of **Date**, or of a type that can be implicitly converted to an Array of **Date**.

CFamt

the amount of the cash flow. *CFamt* is an expression that returns an Array of **Double**, or of a type that can be implicitly converted to an Array of **Double**.

CFdate

the date of the cash flow. *CFdate* is an expression that returns an Array of **Date**, or of a type that can be implicitly converted to and Array of **Date**.

Return Type

Double

Remarks

- If *vDate* IS NULL then *vDate* is set equal to current system processing date
- *Disc_rate* must be greater than -1
- Each cash flows is discounted using the formula *CFamt* * POWER(1+*Disc_rate*, -DATEDIFF(d,*vDate,CFdate*) / 365).

See Also

- CFCONVEXITY - Convexity of a series of cash flows
- CFMDURATION - Modified duration of a series of cash flows
- CONVEXITY - Convexity of an option free bond
- DURATION - Duration of a security
- MDURATION - Macauley Duration
- OFCCONVEXITY - Convexity of a bond with and odd first coupon
- OFCDURATION - Duration of a bond with an odd first coupon
- OFCMDURATION - Modified duration of a bond with an odd first coupon
- OFLCONVEXITY - Convexity of a bond with an odd first and odd last coupon
- OFLDURATION - Duration of a bond with an odd first and odd last coupon
- OFLMDURATION - Modified duration of a bond with an odd first and odd last coupon
- OLCCONVEXITY - Convexity of a bond with an odd last coupon
- OLCDURATION - Duration of a bond with an odd last coupon
- OLCMDURATION - Modified duration of a bond with an odd last coupon
- RPICONVEXITY - Convexity of a bond paying regular periodic interest
- RPIDURATION - Duration of a bond paying regular periodic interest
- RPIMDURATION - Modified duration of a bond paying regular periodic interest
- STEPCONVEXITY - Convexity of a stepped-coupon bond
- STEPDURATION - Duration of a stepped-coupon bond
- STEPMDURATION - Modified duration of a stepped-coupon bond